

SEMICONDUCTOR DEVICE HAVING JUNCTION DIODE
AND FABRICATING METHOD THEREFOR

ABSTRACT

A semiconductor device having a junction diode and a fabricating method therefor
5 prevents deterioration of the gate insulating layer during a plasma etching process required
for wire formation. The semiconductor device includes a junction diode (a unidirectional or
bi-directional junction diode) formed in the substrate at a predetermined distance apart from
a gate wire of a transistor. The gate wire is coupled through an insulating layer to a metal
wire, and the diode(s) are coupled to a dummy metal pattern formed proximal to the metal
10 wire. In this manner, plasma charge generated during wire formation, is discharged into the
semiconductor substrate through the junction diode, preventing accumulation of the plasma
charge in the gate insulating layer of the device. Deterioration of the gate insulating layer
is thereby avoided.

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